



DBE BULLETIN FALL 2005

IN MOTION

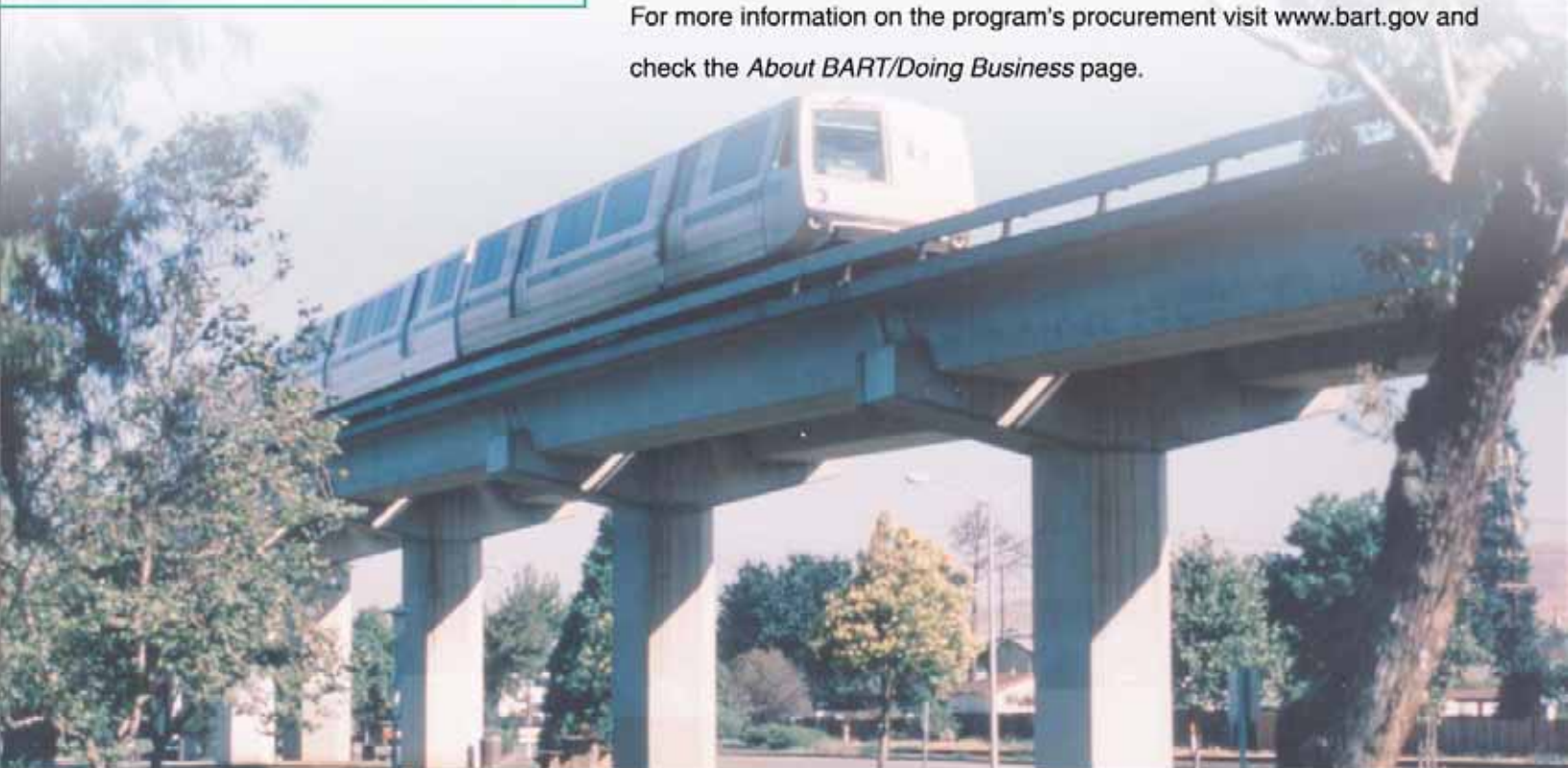
Funding Update

BART has secured significant new funding to support the Earthquake Safety Program. This includes \$3 million in Federal Emergency Management Administration (FEMA) Pre-Disaster Mitigation set-asides and \$4 million in proceeds from real estate sales. BART also anticipates that another award of \$11.5 million from State Traffic Congestion Relief monies will be made by the California Transportation Commission at its next meeting.

Business Outreach 2005 Bechtel Section Design Procurement

The Earthquake Safety Program took a milestone step into the design phase with the first procurement for section design – for Aerial Structures – launched in August 2005. Other design packages will involve Transbay Tube work, and include proposals for the San Francisco Transition Structure and Transbay Tube Offshore. Section design packages for Station Retrofit are scheduled for Spring 2006. Aerial and Transition Structure packages all have a 25% Disadvantaged Business Enterprise (DBE) participation goal. The Transbay Tube Offshore package has a 20% DBE participation goal.

For more information on the program's procurement visit www.bart.gov and check the *About BART/Doing Business* page.



Group Manager Speaks On...

Transbay Tube Retrofits



Construction of the original Transbay Tube



Lowering the Tube into the Bay



Tugboats transport a section of the tube

Recently BART was able to reach critical conclusions regarding the nature and scope of its retrofits of the Transbay Tube near the San Francisco Ferry Building. Due to the unique nature of BART's facilities and the varied soil conditions at the site, this is perhaps the most complex and difficult area to predict earthquake behavior and develop appropriate retrofits.

BART's Vulnerability Study identified several threats to BART structures near the Ferry Building. The Bay bottom at this location is likely to slide eastward (toward the Bay) during a large earthquake, carrying BART structures with it and placing pressure on the flexible seismic joint that isolates the Transbay Tube from BART's San Francisco tunnels. At the same time, BART's Transition Structure, located in the Bay behind the Ferry Building, is founded on weak material and could rock and sway, placing further pressure on the seismic joint. Finally, the Tube itself will experience "push-pull" motions that will cause the seismic joint to open and close repeatedly.

Recent efforts to further analyze these critical areas of concern included:

- Re-evaluation of earthquake forces. BART's Peer Review Panel felt that the earthquake ground motions utilized during the Vulnerability Study might be too high. Using revised motions provided by qualified seismologists, we determined that the likely displacements due to slope movement were less than originally believed.
 - Re-evaluation of existing conditions. Based on actual soil investigations conducted in 2003, we learned that the soil conditions in the area were slightly better than anticipated. This, too, helped to reduce expected displacement. We also were able to gain insight into the friction interaction between the Tube and its surrounding fills, which aided in refining our predictions of the "push-pull" phenomenon.
 - Re-evaluation of retrofit performance. BART consultant *ICEC constructed a global Tube model that allowed better evaluation of the expected performance of the planned retrofits. We learned that some retrofits were not very effective and therefore deleted them, while other retrofits were more extensive than planned.
- With many possible retrofits identified, we went through a two-step feasibility study in order to narrow the options down to the best choice. First, we screened all of the suggested retrofits against two criteria: performance and constructability. Any retrofit that failed either of these tests was eliminated. BART was left with two major retrofit packages. These were screened against other requirements, such as cost and impact to local businesses and facilities. A final option was then chosen.
- We are continuing to refine the final choice. We will also encourage the section designer for the San Francisco Ferry Plaza area, who has yet to be selected, to continue to seek ways to lower costs, improve effectiveness and reduce impact.

**TOM HORTON, GROUP MANAGER
BART EARTHQUAKE SAFETY PROGRAM**

Summer Internship Provides First-Hand Experience at BART

Eight college students from the Bay Area participated in the first Conference of Minority Transportation Officials (COMTO) Internship Program in Northern California, sponsored by the Federal Transit Administration. COMTO is a national non-profit organization of minorities who work in the transportation industry. Among the organization's goals are to "increase the number of minorities appointed to executive positions" and to "create business development opportunities." The six-week summer internship program is designed to provide college students with the opportunity to explore transportation-related careers through valuable hands-on experience.

BART and several of its consultants, including The Allen Group and Bechtel, hosted intern Shani Provost, a senior at Johnson C. Smith University in North Carolina. Shani enjoyed learning about current developments in infrastructure and new construction projects while working with the BART Earthquake Safety DBE Program.

Clockwise lower left to right: Liz Baker and Shonda Scott of The Allen Group, LLC and intern Shani Provost, review printing ink colors.



For more information about COMTO activities and the internship program, visit their national website at www.comto.org.

A letter from teacher Fay Pisciotta,
Edna Brewer Middle School, Oakland, CA

Dear BART,

I would like to express my gratitude for all that BART has done to support our Future City group. We would not have made it to the national competition without you!

Perhaps the most valuable part of this experience for the students is the realization that the world really is theirs for the taking. As a teacher in an Oakland public school, I have watched many students simply "get by" because they do not recognize the rewards of the future. Our Future City students have been splashed in the face with their own undeniable potential. They now view themselves as winners and have the confidence and determination to succeed in endeavors that were initially foreign to them.

The D.C. trip – spending time with students outside of the school setting was priceless. Thank you again for making all of this possible.

BART is a powerful asset to the community!

Sincerely,

Fay Pisciotta



FUTURE CITY
UPDATE

Future City Competition is Enriching Experience for Students and Teachers Alike

Since 2001, BART and its consultants have sponsored local schools in the National Engineers Week Future City Competition. Teams are comprised of: three students, one teacher and an engineer mentor.

In 2005, BART-sponsored Edna Brewer Middle School team was the 1st Place Winner in the 2005 Northern California Future City Competition and became the first team from Oakland to represent Northern California in the National finals in Washington D.C.

For more information on the Future City Competition, please contact Shonda Scott at sscott@bart.gov.



On A National Level

The United States House of Representatives' Homeland Security Committee has been working for the past two years to increase public transportation funding in vitally needed areas. The Secure TRAINS Act would provide \$3.5 billion for competitive targeted grants for special vulnerabilities.

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